

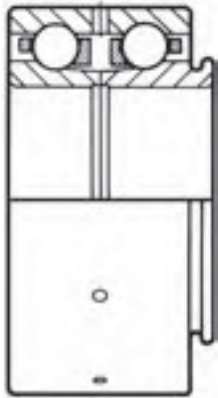
# SPECIAL PRODUCTS

## Introduction

Many applications demand special bearings. No matter what your requirements are—high load, extreme speed, limited space, simplified assembly, efficient distribution of lubrication—NHBB's experienced, knowledgeable staff of

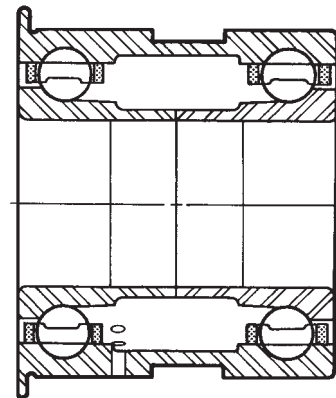
Applications Engineers can help from initial design to product completion. The following pages contain some examples of the nonstandard options available from NHBB.

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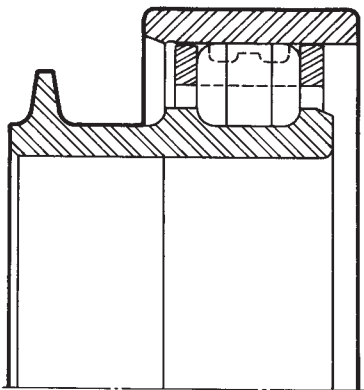
### Super Duplex Ball Bearing Gas Turbine Power Take Off

The design of this ball bearing incorporates a puller groove for ease of disassembly. Oil scavenge holes allow spent lubricant to exit freely.



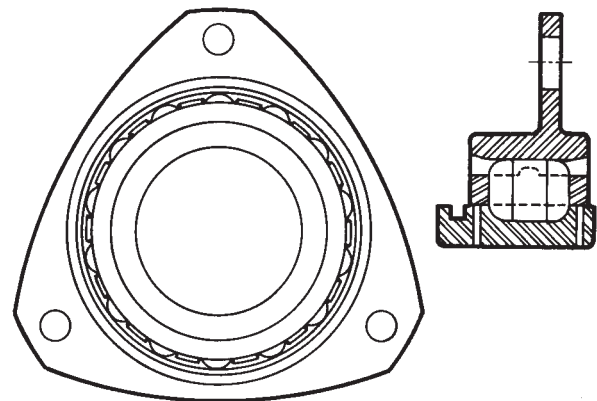
### Super Duplex Ball Bearing Accessory Generator Drive

A locator flange on the outer ring ensures precise positioning and ease of installation. Supplied as a matched set for high moment resistance.



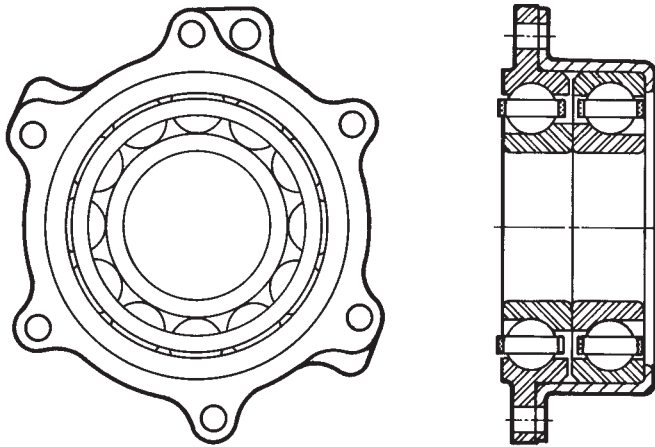
### Cylindrical Roller Bearing Gas Turbine Mainshaft

This unique bearing features an innovative, extended inner ring to direct the flow and enhance the distribution of spent lubricant during the scavenge process.



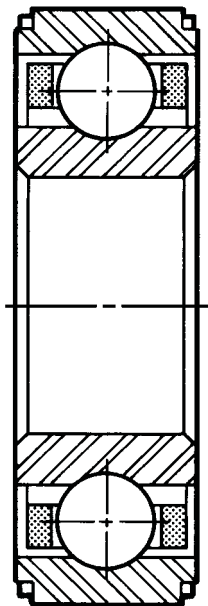
### Cylindrical Roller Bearing Gas Turbine Accessory Gearbox

The design of this bearing incorporates an integral flange for ease of mounting. Oil holes on the inner ring provide for consistent lubrication.



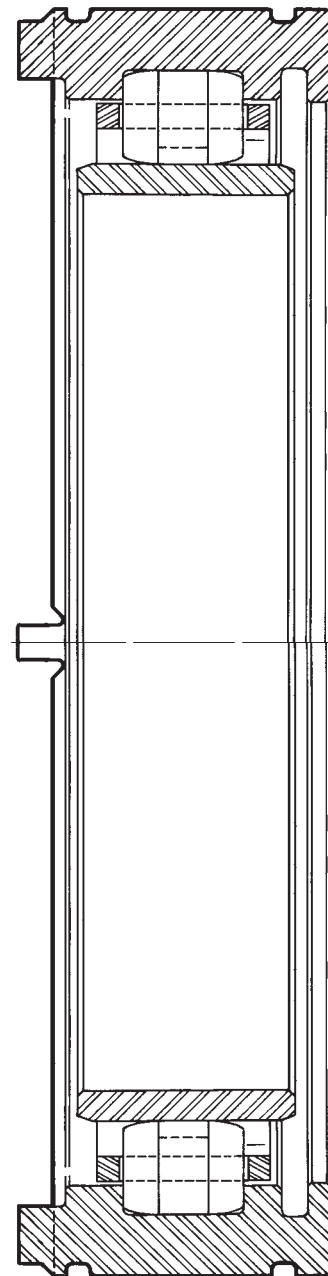
### **Duplex Ball Bearing Main Fuel Pump**

The design of this bearing includes an integral mounting flange and full sleeve for ease of installation and fit.



### **Radial Ball Bearing with Fractured Outer Ring Accessory Gear Support**

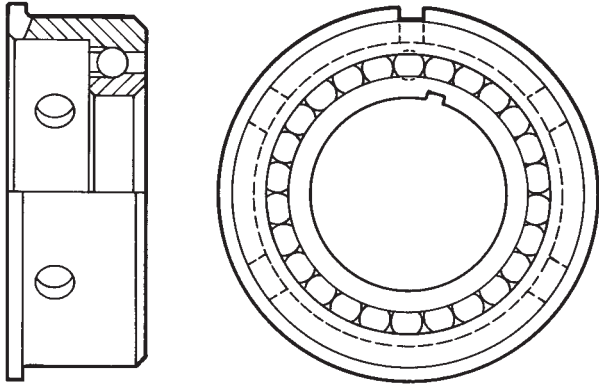
This radial bearing features a fractured outer ring and one-piece cage for maximum ball capacity.



### **Cylindrical Roller Bearing Gas Turbine Mainshaft**

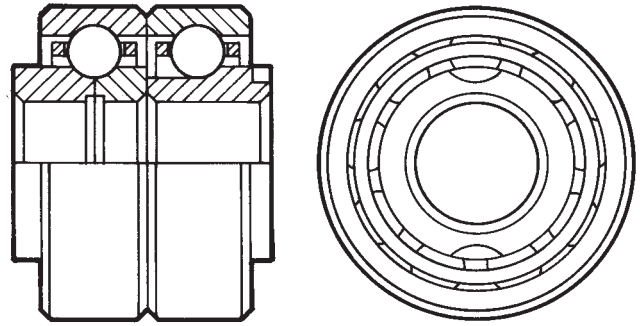
A series of integral, anti-rotation tabs prevent the ring from rotating under load. The design accommodates fluid-damped mounting to further reduce vibration.

# SPECIAL PRODUCTS



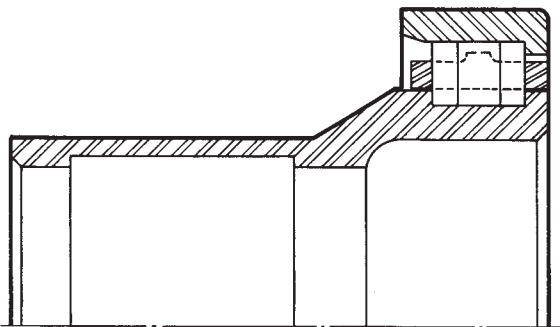
## Full Type Ball Bearing Hydraulic Pump

The extended outer ring has an integral flange which helps simplify assembly. Oil scavenge holes allow spent lubricant to exit freely.



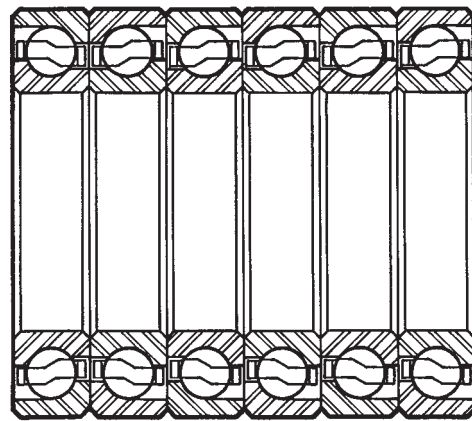
## Duplex Tandem Ball Bearing Helicopter Tail Rotor Gearbox

Containing a split inner ring, this bearing was designed to minimize end play, reducing wear and extending the useful life of the tail rotor gear.



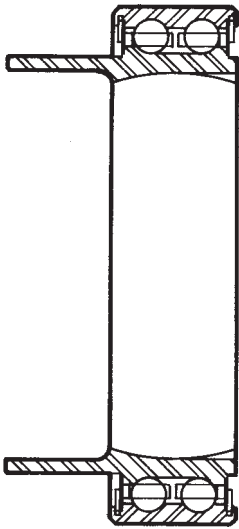
## Cylindrical Roller Bearing Aircraft Engine Hydraulic Pump

The unique design of this roller bearing features an extended inner ring to allow offset mounting under tight space constraints.



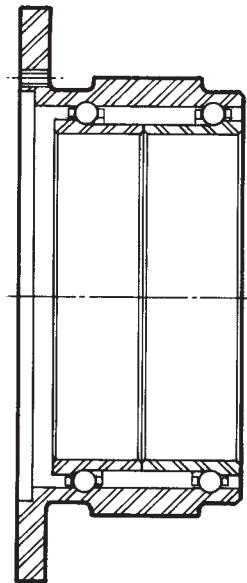
## Matched Set of Six Ball Bearings Helicopter Blade Retention

Designed to accommodate extremely high thrust loads, this product can also be ordered in matched sets of two to eight ball bearings.



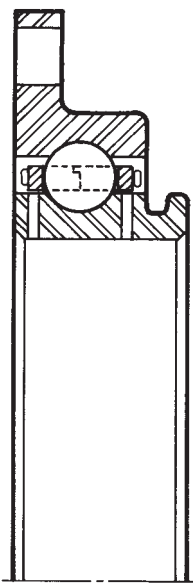
**Double Row  
Ball Bearing  
Helicopter Main Rotor  
Swashplate**

Designed for resistance to cyclic moment loads. Extended inner ring for ease of hardware attachment.



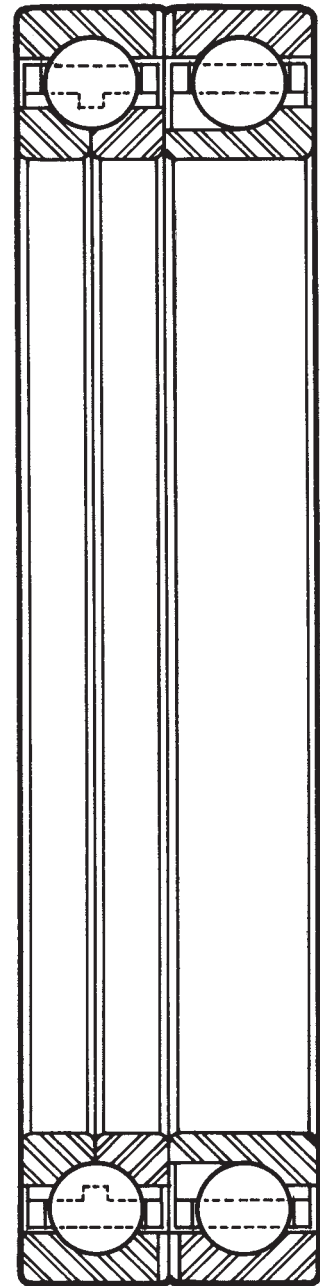
**Super Duplex  
Ball Bearing  
Missile Gimbal Support**

The low torque design also includes a distinct mounting flange for easy installation.



**Radial Ball Bearing  
Aircraft Engine Gearbox**

The design incorporates an integral flange for ease of installation and a puller groove for simple disassembly.



**Duplex Tandem  
Ball Bearing  
Helicopter Main Gearbox**

This bearing was designed specifically for high thrust capacity. A split inner ring minimizes end play, reducing wear and extending the useful life of the gearbox.